

Application Number 10/036,595  
Responsive to Office Action mailed March 8, 2005

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

Claim 1-38 (Canceled).

Claim 39 (Currently Amended): A method comprising the steps of:

- (a) recording traffic volume of packet data for a plurality of priority levels;
- (b) calculating a weighted average bandwidth for each priority level in said plurality of priority levels; and
- (c) determining whether to reject packet data having a first priority level in said plurality of priority levels, wherein said step (c) includes the steps of:
  - (1) determining whether an amount of packet data exceeds a first threshold ;
  - and
  - (2) determining whether more than one weighted average bandwidths  
calculated in said step (b) exceeds a first predetermined value, and
  - (d) rejecting the packet data with said first priority level, if said step (c)(1) determines  
that said amount of packet data exceeds said first threshold and said step (c)(2) determines that  
more than one weighted average bandwidth calculated in said step (b) exceeds said first  
predetermined value, wherein said first priority level has a highest weighted average bandwidth  
calculated in said step (b).

Claim 40 (Canceled).

Claim 41 (Currently Amended): The method of claim 39, wherein said first predetermined value is 0.

Claim 42 (Canceled).

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Claim 43 (Currently Amended): The method of claim 3942, further including the step of:  
(e) determining whether to reject packet data having a secured priority level in said plurality of priority levels.

Claim 44 (Previously Presented): The method of claim 43, wherein said step (e) includes the steps of:

- (1) determining whether said amount of packet data exceeds a second threshold; and
- (2) determining whether more than two weighted average bandwidths calculated in said step (b) exceeds a second predetermined value.

Claim 45 (Previously Presented): The method of claim 44, wherein said second predetermined value and said first predetermined value equal 0.

Claim 46 (Previously Presented): The method of claim 44, further including the step of:

- (f) rejecting packet data with said second priority level, if said step (e)(1) determines that said amount of packet data exceeds said second threshold and said step (e)(2) determines that more than two weighted average bandwidths calculated in said step (b) exceed said second predetermined value, wherein said second priority level has a second highest weighted average bandwidth calculated in said step (b).

Claim 47 (Previously Presented): The method of claim 46, further including the step of:

- (g) determining whether to reject packet data having a third priority level in said plurality of priority levels.

Claim 48 (Previously Presented): The method of claim 47, wherein said step (g) includes the steps of:

- (1) determining whether an amount of packet data exceeds a third threshold; and
- (2) determining whether more than three weighted average bandwidths calculated in said step (b) exceed a third predetermined value.

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Claim 49 (Previously Presented): The method of claim 48, wherein said third predetermined value, said second predetermined value and said first predetermined value equal 0.

Claim 50 (Previously Presented): The method of claim 48, further including the step of:

(h) rejecting packet data with said third priority level, if said step (g)(1) determines that said amount of packet data exceeds said third threshold and said step (g)(2) determines that more than three weighted average bandwidths calculated in said step (b) exceeds said third predetermined value, wherein said third priority level has a third highest weighted average bandwidth calculated in said step (b).

Claim 51 (Previously Presented): The method of claim 39, wherein said step (b) includes the steps of:

(1) dividing a traffic volume recorded in said step (a) for a priority level in said plurality of priority levels by a priority weighting value for said priority level.

Claim 52 (Previously Presented): The method of claim 51, wherein said traffic volume recorded in said step (a) for said priority level is a sum of traffic volume recorded in a plurality of time windows.

Claim 53 (Previously Presented): The method of claim 52, wherein said plurality of time windows has 4 time windows.

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Claim 54 (Previously Presented): A method comprising the steps of:

- (a) recording traffic volume of packet data for a plurality of priority levels;
- (b) calculating a weighted average bandwidth for each priority level in said plurality

of priority levels; and

- (c) determining whether to reject packet data, wherein said step (c) includes the steps

of:

- (1) determining whether an amount of packet data exceeds a first threshold;
- (2) determining whether more than one weighted average bandwidth

calculated in said step (b) exceeds a predetermined value;

- (3) determining whether said amount of packet data exceeds a second

threshold;

- (4) determining whether more than two weighted average bandwidths

calculated in said step (b) exceed said predetermined value;

- (5) determining whether an amount of packet data exceeds a third threshold;

and

- (6) determining whether more than three weighted average bandwidths

calculated in said step (b) exceed said predetermined value.

Claim 55 (Previously Presented): The method of claim 54, further including the step of:

- (d) rejecting packet data with a first priority level, if said step (c)(1) determines that said amount of packet data exceeds said first threshold and said step (c)(2) determines that more than one weighted average bandwidth calculated in said step (b) exceeds said predetermined value, wherein said first priority level has a highest weighted average bandwidth calculated in said step (b).

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Claim 56 (Previously Presented): The method of claim 55, further including the step of:

(e) rejecting packet data with a second priority level, if said step (c)(3) determines that said amount of packet data exceeds said second threshold and said step (c)(4) determines that more than two weighted average bandwidths calculated in said step (b) exceed said predetermined value, wherein said second priority level has a second highest weighted average bandwidth calculated in said step (b).

Claim 57 (Previously Presented): The method of claim 56, further including the step of:

(f) rejecting packet data with a third priority level, if said step (c)(5) determines that said amount of packet data exceeds said third threshold and said step (c)(6) determines that more than three weighted average bandwidths calculated in said step (b) exceed said predetermined value, wherein said third priority level has a third highest weighted average bandwidth calculated in said step (b).

Claim 58 (Previously Presented): The method of claim 54, wherein said step (b) includes the steps of:

(1) dividing a traffic volume recorded in said step (a) for a priority level in said plurality of priority levels by a priority weighting value for said priority level, wherein said traffic volume recorded in said step (a) for said priority level is a sum of traffic volume recorded in a plurality of time windows.

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Claim 59 (Currently Amended): An apparatus comprising:

a set of input ports to receive data packets;  
a set of sink ports in communication with said set of input ports to forward said data packets, wherein a first sink port in said set of sink ports is adapted to perform a method comprising the steps of:

(a) recording traffic volume of packet data for a plurality of priority levels;  
(b) calculating a weighted average bandwidth for each priority level in said plurality of priority levels; and

(c) determining whether to reject packet data having a first priority level in said plurality of priority levels, wherein said step (c) includes the steps of:

(1) determining whether an amount of packet data exceeds a first threshold; and

(2) determining whether more than one weighted average bandwidth calculated in said step (b) exceeds said first predetermined value; and

(d) rejecting packet data with said first priority level, if said step (c)(1) determines that said amount of packet data exceeds said first threshold and said step (c)(2) determines that more than one weighted average bandwidth calculated in said step (b) exceeds said first predetermined value, wherein said first priority level has a highest weighted average bandwidth calculated in said step (b).

Claim 60 (Canceled).

Claim 61 (Canceled).

Claim 62 (Currently Amended): The apparatus of claim ~~59~~61, wherein said method includes the step of:

(e) determining whether to reject packet data having a second priority level in said plurality of priority levels.

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Claim 63 (Previously Presented): The apparatus of claim 62, wherein said step (e) includes the steps of:

- (1) determining whether said amount of packet data exceeds a second threshold; and
- (2) determining whether more than two weighted average bandwidths calculated in said step (b) exceed a second predetermined value.

Claim 64 (Previously Presented): The apparatus of claim 63, further including the step of:

- (f) rejecting packet data with a second priority level, if said step (e)(1) determines that said amount of packet data exceeds said second threshold and said step (e)(2) determines that more than two weighted average bandwidths calculated in said step (b) exceed said second predetermined value, wherein said second priority level has a second highest weighted average bandwidth calculated in said step (b).

Claim 65 (Previously Presented): The apparatus of claim 64, wherein said method includes the step of:

- (g) determining whether to reject packet data having a third priority level in said plurality of priority levels.

Claim 66 (Previously Presented): The apparatus of claim 65, wherein said step (g) includes the steps of:

- (1) determining whether an amount of packet data exceeds a third threshold; and
- (2) determining whether more than three weighted average bandwidths calculated in said step (b) exceed a third predetermined value.

Claim 67 (Previously Presented): The apparatus of claim 66, further including the step of:

- (h) rejecting packet data with said third priority level, if said step (g)(1) determines that said amount of packet data exceeds said third threshold and said step (g)(2) determines that more than three weighted average bandwidths calculated in said step (b) exceed said third predetermined value, wherein said third priority level has a third highest weighted average bandwidth calculated in said step (b).

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Claim 68 (Previously Presented): The apparatus of claim 59, wherein said step (b) includes the steps of:

(1) dividing a traffic volume recorded in said step (a) for a priority level in said plurality of priority levels by a priority weighting value for said priority level.

Claim 69 (Previously Presented): The apparatus of claim 68, wherein said traffic volume recorded in said step (a) for said priority level is a sum of traffic volume recorded in a plurality of time windows.

Claim 70 (Previously Presented): The apparatus of claim 59, wherein each sink port in said set of sink ports is adapted to perform a method comprising said steps of:

(j) recording traffic volume of packet data for a plurality of priority levels;  
(k) calculating a weighted average bandwidth for each priority level in said plurality of priority levels; and  
(l) determining whether to reject packet data for a priority level in said set of priority levels.

Claim 71 (Previously Presented): The apparatus of 59, further including a multi-sink port coupled to said set of input ports, wherein said multi-sink port is adapted to perform a method comprising the steps of:

(m) recording traffic volume for packet data received by said multi-sink port for a plurality of priority levels;  
(n) calculating a weighted average bandwidth for each priority level in said plurality of priority levels; and  
(o) determining whether to reject packet data for a priority level in said set of priority levels.

Claim 72 (Previously Presented): The apparatus of claim 59, further including a set of data rings in communication with said set of input ports and said set of sink ports.



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Claim 73 (Previously Presented): The apparatus of claim 72, wherein said set of data rings couples each sink port in said set of sink ports to each input port in said set of input ports.

Claim 74 (Previously Presented): The apparatus of claim 59, wherein said apparatus is a cross-bar switch.